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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,837	02/08/2001	Norihiro Nakatsuhama	1614.1123	6812

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EXAMINER

BHAT, ADITYA S

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/778,837		NAKATSUHAMA ET AL.	
	Examiner		Art Unit	
	Aditya S. Bhat		2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Takaba et al. (USPN 5,565,856).

Davidson (USPN 4,613,858) teaches the limitations of Claim 1 as follows; an abnormality detection device for detecting an abnormality in a communication bus, the device comprising:

a timer counter configured to measure a time during which a logical output of said communication bus remains at a first logical level, which is a high level or a low level (Col. 2, lines 21-22) and

a comparator (55;figure 3) configured to compare the time measured by said timer counter with a threshold value and to output an abnormality detection signal indicating an abnormality in said communication bus when the time surpasses said threshold value, wherein the abnormality detection device is independent of a CPU controlling the communication bus and detects the abnormality directly form the communication bus (Col. 2, lines 20-43)

Claim 5 has all the limitations of claim one with an additional timer (Col. 1, lines 50-56) and a register for adding the time measured by one of the timers (Col.7, line 40-45)

With regards to Claim 7, Davidson (USPN 4,613,858) teaches a microcomputer (120; See Figure 1a) connected to a communication bus, the microcomputer comprising:

a CPU configured to control the communication bus; (11; figure 1)

a timer counter configured to measure a time during which a logical output of said communications bus remains at a first logical level which is a high or low level; (Col. 2, lines 21-22) and

a comparator (55; figure 3) configured to compare the time measured by said timer counter with a threshold value and to output an abnormality detection signal indicating an abnormality in said communication bus when the time surpasses said threshold value, wherein the timer counter and the comparator are independent of the CPU and are operatively coupled to detect the abnormality directly from the communication bus (Col. 2, lines 20-43)

Regarding claims 2-3, Davidson (USPN 4,613,858) teaches initializing the timer and comparator. (55; figure 3) (Col. 2, lines 21-22)

Regarding claims 9-10, Davidson (USPN 4,613,858) teaches detecting the abnormality directly from the communication by hardware. (figure 3)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2863

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (USPN 4,613,858) in view of Takaba et al. (USPN 5,565,856)

Regarding Claim 4, Davidson (USPN 4,613,858) does not appear to teach a plurality of registers and a means for selecting values stored in those registers.

Takaba et al. (USPN 5,565,856) teaches plurality of registers and a means for selecting values stored in those registers. (1020;Figure 11)

Davidson (USPN 4,613,858) teaches the limitations of Claim 5 as follows; an abnormality detection device for detecting an abnormality in a communication bus, the device comprising:

a timer counter configured to measure a time during which a logical output of said communication bus remains at a first logical level which is a high level or a low level (Col. 2, lines 21-22) and

a comparator (55;figure 3) configured to compare the time measured by said timer counter with a threshold value and to output an abnormality detection signal indicating an abnormality in said communication bus when the time surpasses said threshold value, wherein the abnormality detection device is independent of a CPU controlling the communication bus and detects the abnormality directly from the communication bus (Col. 2, lines 20-43)

Davidson (USPN 4,613,858) does not appear to teach an additional timer and a register for adding the time measured by one of the timers.

Takaba et al. (USPN 5,565,856) teaches an additional timer (Col. 1, lines 50-56) and a register for adding the time measured by one of the timers (Col.7, line 40-45)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Davidson invention to include the aforementioned elements taught by Takaba et al. (USPN 5,565,856) in order to eliminate errors through thorough testing. (col. 1, lines 29-30)

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 6 and 8:

The primary reason for the allowance of claims 6 & 8 is the inclusion of: wherein said register supplies said cumulative time to at least one of said at least two timer counters, and said at least one of said at least two timer counters measures the time by using said cumulative time as an initial value. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schmalzried (USPN 6,367,028) teaches a self-diagnosing communications bus and method of operating same.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

Art Unit: 2863

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
May 12, 2006

BRYAN BUI
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Bryan Bui', located below the printed name and title of the Primary Examiner.